Comparisons of Job Characteristics

Focus Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)
Associated Occupation: Chemical Engineers (17-2041)

Compare Knowledge
Compare Skills
Compare Abilities
Compare Detailed Work Activities
Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 80

Focus Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)
Associated Occupation: Chemical Engineers (17-2041)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Engineering and Technology	5.7	24.1	17.6	<<	Extensive education and/or training may be required
Chemistry	4.8	20.5	7.8	<<	Extensive education and/or training may be required
Mathematics	9.2	19.4	16.6	<	Expanded education and/or training may be required
Physics	4.3	16.9	12.9	<<	Extensive education and/or training may be required
Production and Processing	6.0	15.4	13.3	<	Expanded education and/or training may be required
Design	5.2	15.2	15.1	0	Current knowledge level may be sufficient
Administration and Management	8.4	12.7	8.8	<<	Extensive education and/or training may be required
Biology	3.7	9.6	2.4	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 33

Focus Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)
Associated Occupation: Chemical Engineers (17-2041)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Science	4.5	18.0	7.7	<<	Extensive development of skills in this area may be required
Mathematics	6.2	14.7	10.8	<<	Extensive development of skills in this area may be required

Judgment and Decision Making	9.4	14.6	10.8	<<	Extensive development of skills in this area may be required
Complex Problem Solving	9.1	14.5	11.3	<<	Extensive development of skills in this area may be required
Systems Analysis	6.5	14.1	9.5	<<	Extensive development of skills in this area may be required
Operations Analysis	5.0	13.5	7.2	<<	Extensive development of skills in this area may be required
Systems Evaluation	6.4	13.4	8.5	<<	Extensive development of skills in this area may be required
Troubleshooting	4.5	10.4	10.6	0	Current skill level may be sufficient
Technology Design	2.6	8.5	7.0	<	A higher skill level may be required
Management of Financial Resources	3.3	7.4	4.5	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 90

Focus Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)
Associated Occupation: Chemical Engineers (17-2041)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Oral Comprehension	12.5	15.8	13.6	<	Some improvement in abilities may be required
Category Flexibility	9.0	15.2	11.0	<<	Extensive improvement in abilities may be required
Deductive Reasoning	10.6	15.2	12.9	<	Some improvement in abilities may be required
Information Ordering	9.9	15.1	12.0	<<	Extensive improvement in abilities may be required
Problem Sensitivity	11.1	14.8	12.6	<	Some improvement in abilities may be required
Inductive Reasoning	10.2	14.6	12.0	<	Some improvement in abilities may be required
Mathematical Reasoning	6.3	14.2	11.2	<<	Extensive improvement in abilities may be required
Number Facility	6.3	13.4	10.2	<<	Extensive improvement in abilities may be required
Originality	7.6	13.0	9.2	<<	Extensive improvement in abilities may be required
Visualization	7.5	11.7	12.3	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

There are no common work activities.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 81

Focus Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)
Associated Occupation: Chemical Engineers (17-2041)

Tools and Technologies	Exclusivity
Business function specific software	1
Computers	1
Content authoring and editing software	1
Data management and query software	1
Development software	4
Finance accounting and enterprise resource planning ERP software	2
Gas analyzers and monitors	10
Heating equipment and parts and accessories	19
Industry specific software	1
Integrated circuits	18
Laboratory centrifuges and accessories	13
Laboratory decanting and distilling and evaporating and extracting equipment and supplies	19
Laboratory filtering equipment and supplies	51
Pipettes and liquid handling equipment and supplies	16
Pumps	9
Spectroscopic equipment	10
Viewing and observing instruments and accessories	4
Vision protection and accessories	3
Water treatment and supply equipment	21

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.